

IN THE SPECIFICATION:

Please incorporate the enclosed paper copy of the substitute SEQUENCE LISTING into the application on the page following the Abstract.

Please insert the following paragraph as the first paragraph on page 1 of the specification:

CROSS-REFERENCE TO RELATED APPLICATION

This application is a national phase entry under 35 U.S.C. 317, of International Application No. PCT/EP2004/052962 filed November 15, 2004, and published in English as International Patent Publication No. WO 2005/047537 on May 26, 2005, which claims priority from application EP 03104181.7 filed on November 13, 2003, the entirety of each of which are incorporated herein.

Please replace the paragraph on page 26, beginning on line 16, with the following paragraph:

Expression analysis

A plasmid clone IRALp962K0712, containing the complete human *HSP22* cDNA sequences were obtained from RZPD (The Resource Center of the German Human Genome Project at <http://www.rzpd.de/>). T3- and T7-primers were used to make a *HSP22* cDNA probe of 800 bp. This probe was used to hybridize the Human 12 and 8-lane Multiple Tissue and Brain Northern blot (Clontech). Total RNA was extracted from mouse muscle (NMRI, Navy Medical Research Institute, USA) using the Totally RNA Kit (Ambion). RT-PCR was carried out using the Random Primer DNA Labeling System (Life Technologies). The full-length mouse *Hsp22* cDNA was used as a probe to hybridize the Mouse Multiple Tissues and Embryo's Northern blot (Clontech). Northern blots were also hybridized with a β -actin cDNA probe (Clontech) as a control for RNA loading. Motor and sensory neurons were isolated from 13 days old mice embryos. Total RNA was extracted using the Totally RNA Kit (Ambion) and RT-PCR was carried out using the SMART PCR cDNA Amplification kit (Clontech). Mouse *Hsp22* cDNA

primers (musH11-F = '5-ACCTTTGGGTAGGTGGCTCT-3' (SEQ ID NO:18) and musH11-R = '5-GGGATGGGAGCGAAGAAG-3' (SEQ ID NO:19)) were used to amplify *Hsp22* cDNA fragment of 687 bp.

Please replace Table 2, beginning on page 28, line 10, with the following:

Table 2: Primer sequences for sequencing of candidate genes

Gene and primer name	Forward primer sequences (5'-->3')	Reverse primer sequences (5'-->3')	Primer position according to the first ATG (start-end)	PCR-product (bp)
PRKAB1ex1	GGTTGGGAAAGTGTCTGGTTT (SEQ ID NO: 20)	GGAGGGTTCCTCTCCTCAAC (SEQ ID NO: 21)	1-435	481
PRKAB1ex2	TCCGATCCTAACCATGAACC (SEQ ID NO: 22)	TTTCCACTAGGCATCCATTTT (SEQ ID NO: 23)	436-598	397
PRKAB1ex3-4	TCTGTAGCTGGTTTGGCAAG (SEQ ID NO: 24)	AGACTGTACAGCCCCCACCT (SEQ ID NO: 25)	599-807	621
PRKAB1ex5	CTTGAACCAAGTGCATCCTT (SEQ ID NO: 26)	TTTGCAAGAGGTGGACACAG (SEQ ID NO: 27)	808-941	360
PRKAB1ex6-7	GGGGAGAATCTTGGTTTCCA (SEQ ID NO: 28)	ACCAGGGCAGGTATGAAATG (SEQ ID NO: 29)	942-1088	585
SIRT4ex1	TGGTGATCAAGACAGCCAAG (SEQ ID NO: 30)	CTGGGCAACAGAGGGAGACT (SEQ ID NO: 31)	1-518	691
SIRT4ex2	CGTCTCTGACAGCTTTGTGC (SEQ ID NO: 32)	CTGCACGGAGAAAAGACACA (SEQ ID NO: 33)	519-816	492
SIRT4ex3	TTGGGAGTCCTGGAGAGACA (SEQ ID NO: 34)	AGTATGACCCCTGTGCAAGA (SEQ ID NO: 35)	817-965	500
CITex1	GTTGAACCCCTTGGGAGAACGTG TCACGTGGGTTTCAGAAA (SEQ ID NO: 36)	GTGTCACGTGGGTTTCAGAAA (SEQ ID NO: 37)	255-452	382
CITex2	TTTAGCACCAGGAGGCTTGTCCT GACCAAAGTAATCTCCA (SEQ ID NO: 38)	CCCGACCAAAGTAATCTCCA (SEQ ID NO: 39)	453-647	398
CITex3	AACCATGGGACATTTTGGGA (SEQ ID NO: 40)	AGAGACGGACCAGCCTTCTT (SEQ ID NO: 41)	648-786	354
CITex4	GACACTGTGGGAGGAGGAGATCT TTCTCCGTGAAGGTTTCG (SEQ ID NO: 42)	TCTTTCTCCGTGAAGGTTTCG (SEQ ID NO: 43)	787-887	351
CITex5	CGAAGTGCTGGGATTACAGGGGT GCCATGCCTGAAATTAG (SEQ ID NO: 44)	GGTGCCATGCCTGAAATTAG (SEQ ID NO: 45)	888-1030	321

CITex6	GTCCACTGAGCCATGAATGATGA CTCAGTACTGTTTGTGTTGGA (SEQ ID NO: 46)	TGACTCAGTACTGTTTGTGTTGGA (SEQ ID NO: 47)	1031-1138	306
CITex7	ACATCAACTTGGCAATGCACGCT TTTGTGGTTTGCTCCTC (SEQ ID NO: 48)	GCTTTTGTGGTTTGCTCCTC (SEQ ID NO: 49)	1139-1254	434
CITex8	CTTGAGCTCCCAACTTCAGGCTG TGCATTGCCAAGTTGAT (SEQ ID NO: 50)	CTGTGCATTGCCAAGTTGAT (SEQ ID NO: 51)	1255-1419	489
CITex9	CAGCTTCAACAGGGGAAAAATTC CCTTTCTGTGGGTTGTC (SEQ ID NO: 52)	TTCCCTTTCTGTGGGTTGTC (SEQ ID NO: 53)	1420-1557	382
CITex10-11	ACTGGGGAGACCTGGGTTAGAG AGGAAGGGAAGGGTCCAG (SEQ ID NO: 54)	AGAGGAAGGGAAGGGTCCAG (SEQ ID NO: 55)	1558-1830	568
CITex12-13	AGCCTGAGGGGAATCAAAATTCC CCTTGTTCTTGTTCTG (SEQ ID NO: 56)	TCCCCTTGTTCTTGTTCTG (SEQ ID NO: 57)	1831-2105	684
CITex14-15	CATGAAACGTGGCTTCAACAGGT TTCTCTGGATGGTTTGG (SEQ ID NO: 58)	GGTTTCTCTGGATGGTTTGG (SEQ ID NO: 59)	2106-2323	520
CITex16	ACGAGCTCTGTGGGAAGAGATCT GTGTGGCCTCTTGAC (SEQ ID NO: 60)	TCTGTGTGGCCTCTTGAC (SEQ ID NO: 61)	2324-2462	323
CITex17	CAGTGCACTTTCCACACTGGTTCC TAGTTTGGCCACAG (SEQ ID NO: 62)	TTCTAGTTTGGCCACAG (SEQ ID NO: 63)	2463-2556	242
CITex18-19	TCCATGTACCCTCCTCCAACAGAA CAGCTGTGGACCTTGG (SEQ ID NO: 64)	AGAACAGCTGTGGACCTTGG (SEQ ID NO: 65)	2557-2793	486
CITex20	CGGATGCAATTCTTTCCAGTGCT CCTCATTCTTCCATCA (SEQ ID NO: 66)	TGCTCCTCATTCTTCCATCA (SEQ ID NO: 67)	2794-2874	237
CITex21-22	TGGTTAGTATCACTTCCTTCTGCC TTTGATTTCCCTCTTTTCACC (SEQ ID NO: 68)	TTTGATTTCCCTCTTTTCACC (SEQ ID NO: 69)	2875-3133	535
CITex23	TCAGTTCCCAAGTCACTCCGTCA AGGAGGGGGTTGCT (SEQ ID NO: 70)	GTCAAGGAGGGGGTTGCT (SEQ ID NO: 71)	3134-3439	455
CITex24	TGATGATGTGGTCGAGCTAAA (SEQ ID NO: 72)	GTGAGCACAGCAACTTCTGG (SEQ ID NO: 73)	3440-3461	598
HSP22ex1	CAGGGCTGAGGGCTACATC (SEQ ID NO: 74)	GAGAGGCCGGCTGAACTT (SEQ ID NO: 75)	1-891	950
HSP22ex2	AGGGAGAGACCCAGATCAT (SEQ ID NO: 76)	TCATAGCCAGCCTTGGAAGT (SEQ ID NO: 77)	892-955	350
HSP22ex3	CCAACATTGTATGTCCCCAAACCC GCACCCTCTAACATTT (SEQ ID NO: 78)	CCCGCACCTCTAACATTT (SEQ ID NO: 79)	956-1114	450